

REMARKS

This Request for Reconsideration is made in reply to the Office Action dated June 28, 2005, in which the Examiner:

rejected claims 1-6, 8/2, 8/3, 8/5, 8/6 and 9/6 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,309,319 to Messina in view of U.S. Patent No. 5,365,400 to Ashiwake et al.;

rejected claims 1-15 under 35 U.S.C. § 112, second paragraph, as indefinite;

indicated claims 4, 7, and 11-13 would be allowable if rewritten as independent claims; and

objected to claims 10, 14 and 15 as being improper multiple dependent claims.

Applicants respectfully traverse these rejections and objections below. Claims 1-15 have been cancelled and claims 16-30 added by Preliminary Amendment submitted July 20, 2004. Claims 16-30 are currently pending. Claims 16-30 have been amended.

Applicants respectfully note that the Examiner has not addressed the currently pending claims. Accordingly, Applicants request the Examiner issue a new Office Action addressed to claims 16-30, as amended by this Amendment and Response.

In the interests of furthering prosecution, Applicants note that the subject matter of claim 16-30 substantially corresponds to the subject matter of claim 1-15. Claims 16-30 were added to remove multiple dependencies and reference numerals from the original claims 1-15, and to place the claims in better U.S. form.

Regarding the obviousness rejection of claim 1, corresponding to claim 16, claim 16 recites, in part, a cooling device comprising a heat conducting cooling plate for the item or items to be cooled and platelike distributing device arranged in the vicinity of the cooling plate for a cooling fluid, said distributing device having, on a side facing the cooling plate, a plurality of

outlet openings for the cooling fluid and having at least one drain opening for the cooling fluid, wherein the distributing device has a first plate in which the outlet openings and a plurality of drain openings are uniformly distributed, and wherein the outlet openings are arranged in spaced condition from the cooling plate and are directed toward the cooling plate.

It is not proper to modify manifold 102 of Messina in light of the triple-structured housing 16 of Ashiwake, as Messina teaches away from the arrangement of Ashiwake. Specifically, Messina teaches:

In a preferred embodiment, the manifold is substantially a metallic *one-piece* manifold, made of a substantially homogenous material, and at least one of a casting, drilling, milling, planing and etching operation is used to define the main liquid inflow ducts, main liquid outflow ducts, component cooling chambers, liquid supplying ducts and fluid removing ducts. (col. 8, line 65 to col. 9, line 3; emphasis added)

As Messina expressly teaches that a one-piece manifold is preferred, modifying Messina to incorporate the triple-structured housing 16 of Ashiwake would contradict that express teaching, and is therefore improper.

Further, regarding the motivation to make such a modification, the Examiner has stated that the modification would be obvious "in order to reduce manufacturing cost." Applicants respectfully note that neither Messina nor Ashiwake teach or suggest that triple-structured housing 16 is a less expensive production alternative. Ashiwake is completely silent about the relative manufacturing costs of triple-structured housing 16. Messina specifically teaches that the Messina device addressed deficiencies in the prior art "by providing a cooling system high in power dissipation, *low in manufacturing cost* and complexity...." (col. 3, lines 8-10, emphasis added)

As Messina teaches away from modification in light of Ashiwake, and neither Ashiwake nor Messina teach or suggest that such a modification would achieve the benefit alleged by the Examiner, Applicants respectfully submit that the combination of Messina and Ashiwake is improper.

Even if there were a proper motivation to combine Messina and Ashiwake, such a combination would still not teach or suggest all the recitations of Applicants claim 16. Specifically, neither Messina nor Ashiwake

nor combination thereof teaches or suggests a distributing device having, on a side facing the cooling plate, a plurality of outlet openings for the cooling fluid, wherein the outlet openings are directed toward the cooling plate.

Messina does not teach or suggest a plurality of outlet openings for the cooling fluid directed toward the cooling plate. Insofar as thermally conductive slug or thin metallic disk 510 teaches or suggests a cooling plate, Messina teaches that only one liquid supplying duct 112 supplies cooling liquid to each component cooling chamber 130 and metallic disk 510.

Ashiwake does not teach or suggest a cooling plate or a plurality of outlet openings directed toward a cooling plate. Instead, Ashiwake teaches heat sinks having tabular fins laminated to form passageways for flowing cooling fluids in radial directions (see Abstract; col. 3, lines 24-30). Cooling fluid 20 from header unit 19 is fed to each heat sink 35 via only one slit-like nozzle 37.

As there is no motivation to combine the teaching of Messina and Ashiwake, and as the combined teachings still do not teach or suggest the claim 16 recitations, Applicants respectfully submit that claim 16 is allowable over Messina and Ashiwake for at least this reason.

Claims 17-30 depend from an allowable claim 16, including additional recitations thereto. Applicants respectfully submit that claims 17-30 are allowable over Messina and Ashiwake for at least this reason.

Regarding the indefiniteness rejections of claims 1-15, Applicants respectfully submit that claims 16-30 have been amended to remove the wording specifically rejected by the Examiner, thereby overcoming this rejection as potentially applied to claims 16-30.

Regarding the objections to claims 10, 14 and 15, Applicants respectfully submit that this objection is moot, as the Preliminary Amendment adding claims 16-30 removed all multiple dependencies from the claims.

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Applicants respectfully submit that nothing in the current amendment constitutes new matter. Claim amendments were made to correct a typographical error in claim 16 ("from" in original claim 1, transposed to "to form" in claim 16), and to further conform the claims to current U.S. practice.

As Applicants have traversed each and every objection and rejection made by the Examiner, as prospectively applied to the pending claims 16-30, it is hereby respectfully requested that the Examiner withdraw the rejections of claims 1-15, and pass claims 16-30 to issue.

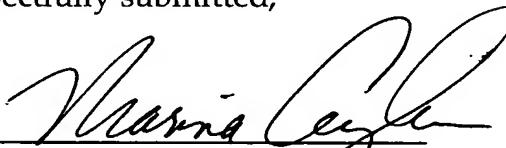
Applicant hereby petitions for a one-month extension of time in order to file an Response to Office Action in the above-identified application. The fee of \$120.00 required under 37 CFR 1.17(a) is enclosed.

If any additional extension of time for the accompanying response is required, applicant requests that this paper be considered a petition therefor.

The Commissioner is authorized to charge any fees under 37 CFR 1.17(a) to (d), which may be required to Deposit Account No. 13-0235.

Respectfully submitted,

By


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